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(manufactured by Sanmatsu Kogyo Co., Ltd.) were added to 7 kg of hot water (60° C.), and dissolved and dispersed using a TK homomixer (manufactured by Tokushu Kika Co., Ltd.), and thereby a liquid product was prepared.

To this liquid product, 140 g of monoglyceride succinate (manufactured by Kao Corporation), 2.2 kg of modified fat (manufactured by Taiyo-Yushi Co., Ltd.), 400 g of a mineral mixture (manufactured by Tomita Pharmaceutical Co., Ltd.), and 20 g of a vitamin mixture (manufactured by Tanabe Seiyaku Co., Ltd.) were added and subjected to a preliminary emulsification using a TK homomixer (manufactured by Tokushu Kika Co., Ltd.), and then water was added to bring the total amount to 100 kg.

Next, the preliminarily emulsified product was homogenized by being subjected to five repetitions of a two-stage treatment of a 5 MPa first stage and a 50 MPa second stage using a high pressure homomixer (manufactured by Manton Gaulin Co.), and thereby 92 kg of a liquid food were prepared.

Approximately 11 kg of this liquid food was filled into retortable pouches (manufactured by Toyo-Seikan Kaisha Ltd.) in 200 ml amounts. Thereafter, they were sterilized at 125° C. for 10 minutes using a retort sterilizer (manufactured by Hisaka Works, Ltd), and thereby 50 units of liquid food for allergy patients was prepared.

The obtained liquid food for allergy treatment had good emulsifiability and flavor, and the remaining antigenic activity of the protein component was extremely low. Therefore, it is suitable as a food or drink for allergy patients.

#### INDUSTRIAL APPLICABILITY

By the manufacturing method of the protein hydrolysate of the present invention, it is possible to manufacture a protein hydrolysate which has low antigenicity and superior emulsifiability, while maintaining an excellent recovery rate of protein hydrolysate with respect to the protein starting material, and this protein hydrolysate can be used by people who have a predisposition to incidence of allergy.

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The protein hydrolysate of the present invention has excellent emulsifiability and essentially has no antigenicity, and therefore it can be used as a food or drink for the prevention of incidence of allergy and for allergy patients.

Foods and drinks which contain the protein hydrolysate of the present invention have good emulsifiability and flavor, the remaining antigenic activity of the protein component is extremely low. Therefore, they are useful as foods for the prevention of incidence of allergy diseases and as protein sources for allergy patients, such as low antigenic modified milk and modified powdered milk. Specifically, various types of foods and drinks such as modified powdered milk, modified milk, nutritional supplements, nutritional foods for the sick, and liquid foods, can be given as examples.

What is claimed is:

1. A method of manufacturing protein hydrolysate at a recovery rate of 60% or higher, the method comprising the steps of:

carrying out hydrolysis of a protein starting material to a rate of hydrolysis within a range of 30 to 45%; and

bringing an obtained protein hydrolysate into contact simultaneously or separately with two types of porous synthetic adsorbent respectively having an average pore radius in a range of 2 to 8 nm and an average pore radius in a range of 20 to 30 nm, the total surface area of the two porous synthetic adsorbents being in a range of 300 to 3000 m<sup>2</sup> per 1 g of the obtained protein hydrolysate, and

recovering a non-adsorbed component.

2. A method of manufacturing protein hydrolysate according to claim 1, wherein the porous synthetic adsorbent having an average pore radius in a range of 2 to 8 nm and the porous synthetic adsorbent having an average pore radius in a range of 20 to 30 nm are used such that a ratio of a surface area of the porous synthetic adsorbent having an average pore radius in a range of 2 to 8 nm to a surface area of the porous synthetic adsorbent having an average pore radius in a range of 20 to 30 nm is in a range of 4:6 to 6:4.

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